

In the claims:

1. (currently amended) A reduced keyboard system for text input on an electronic device, comprising;

(a) a virtual keyboard comprising a plurality of keys;

(b) an input device associated with said virtual keyboard, wherein text input is performed by placing said input device onto the virtual key of said keyboard that corresponds to the first character of a word, sliding said input device to subsequent virtual keys corresponding to subsequent characters of a word, and lifting said input device from said virtual keyboard so as to produce a bi-dimensional input pattern, and;

(c) a dictionary database associated with said virtual keyboard, said dictionary database comprising a plurality of classes wherein each of said classes contain words that have first and last letters corresponding to predetermined keys of said virtual keyboard;

wherein said bi-dimensional input pattern is used in order to determine the identity of the inputted word at least partially based on mathematical monotonous comparisons between said bi-dimensional input pattern and a temporary library of patterns generated from words contained within ~~the class~~ possible classes of said dictionary database to which the inputted word belongs such that inputted words are identified based on whole-word recognition.

2. (original) A reduced keyboard system according to claim 1, wherein the keyboard has any QWERTY arrangement.

3. (original) A reduced keyboard system according to claim 2, wherein the keyboard has a concave curvature.
4. (original) A reduced keyboard system according to claim 2, wherein the keyboard has a convex curvature.
5. (original) A reduced keyboard system according to claim 1, wherein the keyboard has a 6X5 key array arrangement.
6. (original) A reduced keyboard system according to claim 1, wherein the keyboard has a 4X4 key array arrangement.
7. (original) A reduced keyboard system according to claim 1, wherein at least one of said keys of said keyboard contains at least two characters.
8. (original) A reduced keyboard system according to claim 1, wherein the keyboard comprises a plurality of concentric circles.
9. (original) A reduced keyboard system according to claim 8, wherein the keyboard comprises 13 keys, and wherein the concentric circles comprise an outer circle having 8 keys, a middle circle having 4 keys, and an inner circle having one key.
10. (original) A reduced keyboard system according to claim 9, wherein each of said keys corresponds to two characters of the alphabet.

11. (original) A reduced keyboard system according to claim 8, wherein the keyboard comprises 16 keys, and wherein the concentric circles comprise an outer circle having 10 keys, a middle circle having 5 keys, and an inner circle having one key.
12. (original) A reduced keyboard system according to claim 1, wherein words belonging to a specific class of said dictionary database are ordered according to curvilinear length.
13. (original) A reduced keyboard system according to claim 1, further comprising means for segmenting the bi-dimensional input pattern into monotonous segments.
14. (original) A reduced keyboard system according to claim 1, further comprising means for applying a line simplification algorithm to said bi-dimensional input pattern.
15. (original) A reduced keyboard system according to claim 1, further comprising means for computing the matching distance between the bi-dimensional input pattern and patterns generated from a plurality of words to the dictionary database class to which the inputted word belongs.
16. (original) A reduced keyboard system according to claim 1, further comprising means for determining possible intermediate letter candidates of the inputted word.

17. (original) A reduced keyboard system according to claim 16, wherein said means for determining possible intermediate letter candidates allows for input errors.

18. (original) A reduced keyboard system according to claim 1, further comprising means for allowing the user to use the keyboard as a conventional keystroke keyboard.

19. (original) A reduced keyboard system according to claim 1, further comprising means for allowing the user to use the keyboard as a conventional keystroke keyboard, wherein at least one key of said keyboard comprise two characters and wherein a bi-dimensional input pattern is generated from the keys which are keystroked during the input of a word for enabling word recognition and disambiguation.

20. (currently amended) A method for text input on an electronic device, using a reduced virtual keyboard associated with said electronic device, said method comprising;

(a) placing an input device onto the virtual key of a reduced virtual keyboard that corresponds to the first character of a word, sliding said input device to subsequent virtual keys corresponding to subsequent characters of said word, and lifting said input device from said virtual keyboard so as to produce a bi-dimensional input pattern;

(b) applying at least one mathematical filter to said bi-dimensional input pattern;

(c) determining key characteristics of said bi-dimensional input pattern, possibly including, but not

limited to, possible first and last letters of the inputted word, possible intermediate letters of the inputted word, and curvilinear length of at least a portion of the bi-dimensional input pattern;

~~(b)~~ (d) providing a dictionary database associated with said virtual keyboard, said dictionary database comprising a plurality of classes wherein each of said classes contain words that have first and last letters corresponding to predetermined keys of said virtual keyboard and generating a temporary library of bi-dimensional patterns corresponding to words found in dictionary classes to which the inputted word could possible belong based on step (c);

(e) comparing said bi-dimensional input pattern with said temporary library of bi-dimensional patterns generated from words belonging to the class of said dictionary database to which the inputted word belongs in order to identify at least one solution for the inputted word based on whole-word recognition, wherein said comparison is performed at least partially based on monotonous segments comparisons and best matching distance determination.

~~(d) identifying at least one solution for the inputted word based on the comparison carried out in step (e).~~

21. (original) A method according to claim 20, wherein words belonging to a specific class of said dictionary database are ordered according to increasing or decreasing curvilinear length.

22. (currently amended) A method according to claim 20, ~~further comprising~~ wherein step (b) comprises applying a

line-simplification algorithm to said bi-dimensional input pattern.

23. (cancelled)

24. (cancelled)

25. (cancelled).

26. (original) A method according to claim 25, wherein said determining possible intermediate letter candidates of the inputted words allows for input errors.

27. (cancelled)

28. (original) A method according to claim 20, wherein the virtual keyboard has a *QWERTY* arrangement.

29. (original) A method according to claim 28, wherein the keyboard has a concave curvature.

30. (original) A method according to claim 28, wherein the keyboard has a convex curvature.

31. (original) A method according to claim 20, wherein at least one of the keys of said virtual keyboard contains at least two characters.

32. (original) A method according to claim 20, wherein the keyboard comprises a plurality of concentric circles.

33. (original) A method according to claim 32, wherein the keyboard comprises 13 keys, and wherein the concentric

circles comprise an outer circle having 8 keys, a middle circle having 4 keys, and an inner circle having one key.

34. (original) A method according to claim 33, wherein each of said keys corresponds to at least two characters of the alphabet.

35. (original) A method according to claim 32, wherein the keyboard comprises 16 keys, and wherein the concentric circles comprise an outer circle having 10 keys, a middle circle having 5 keys, and an inner circle having one key.

36. (original) A hardware keyboard for use with an electronic device comprising three concentric circles, wherein at least one of the keys of said keyboard comprises two characters, said keyboard further comprising means for generating a bi-dimensional input pattern for a word inputted using keystrokes and for recognizing the inputted word based on said bi-dimensional input pattern.